

Notice of Allowability

Application No.

10/005,609

Examiner

Alain L. Bashore

Applicant(s)

GLODJO ET AL.

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7-11-05.
2. ☒ The allowed claim(s) is/are 1-18, 44-45, 47, 48.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☒ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


ALAIN L. BASHORE
PRIMARY EXAMINER

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, with respect to the rejections of record have been fully considered and are persuasive. The rejections of record are withdrawn.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Radlow on 9-13-05.

The application has been amended as follows:

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1. (currently amended) Apparatus for facilitating trading two items from the group of items consisting of commodities and financial instruments. said apparatus comprising:

at least two [agents that want to trade] agent means for trading the items;.
a trading channel between each pair of [agents] agent means allowing for the execution of trades;
flow [limits] limit means for setting limits on the trading items and on any underlying instrument to be exchanged upon settlement of the trade items; and,
a central computer coupled to the at least two [agents] agent means, said computer adapted to derive and convey each agent means individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account [all on] the current limits set by the [current] flow [limits] limit means between all pairs of [agents] agent means.

2. (currently amended) The apparatus of claim 1 wherein both [agents] agent means are coupled to the central computer when they are trading.

3. (currently amende4) Apparatus for facilitating trading two items from the group of items consisting of commodities and financial instruments, said apparatus comprising;

al least two [agents that want to trade] agent means for trading the items;

a trading channel between each pair of [agents] agent means allowing for the execution of trades;

flow [limits] limit means for setting limits on the traded items and on any underlying instruments to be exchange: upon settlement of the traded items; and,

a central computer coupled to the at least two [agent] agent means, said computer adapted to convey to each agent means individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account [all of] the current limits set by the [current] flow [limits] limit means between all pairs of [agents] agent means;

wherein at least one agent means is a credit-extending agent means.

4. (currently amended) Apparatus for facilitating trading two items from the group of items consisting of commodities and financial instruments, said apparatus comprising:

at least two [agents that want to trade] agent means for trading the items;

a trading channel between each pair of [agents] agent means allowing for the execution of trades;

flow [limits] limit means for setting limits on the traded items and on any underlying instruments to be exchanged upon settlement of the traded items; and

a central computer coupled to the at least two [agents] agent means, said computer adapted to convey to each agent means individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically

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determined by and taking into account [all of] the current limits set by the [current] flow [limits] limit means between all pairs of [agents] agent means;

wherein there are at least two credit extending [agents] agent means having trading channels with a single non-credit-extending agent means.

5. (currently amended) Apparatus for facilitating trading two items from the group of Items consisting of commodities and financial instruments, said apparatus comprising:

at least two [agents that want to trade] agent means for trading the items;

a trading channel between each pair of [agents] agent means allowing for the execution of trades;

flow [limits] limit means for setting limits on the traded items and on any underlying instruments to be exchanged upon settlement! of the traded items; and

a central computer coupled to the at least two [agents] agent means, said computer adapted to convey to each agent means individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account [all of] the current limits set by the [current] flow [limits] limit means between all pairs of [agents] agent means;

wherein there are at least two trade-seeking [agents] agent means from the group of [agents] agent means consisting of credit -extending [agents] agent means and non-credit-extending [agents] agent means, each such trade-seeking agent means having a trading channel with a single credit extending agent means, wherein said

credit-extending agent means has instructed the central computer that it is permissible to have two such trade-seeking [agents] agent means perform trades via said credit-extending agent means.

6. (currently amended) The apparatus of claim 5 wherein the two trade-seeking [agents] agent means subject to said instruction from said credit-extending agent means do not have an available trading channel between them. and the credit-extending agent means yields some of its trading channel capacity to said two trade-seeking [agents] agent means.

7. (currently amended) Apparatus for facilitating trading two items from the group of items consisting of commodities and financial instruments, said apparatus comprising:

at least two [agents that want to trade] agent means for trading the items;
a trading channel between each pair of [agents] agent means allowing for
the execution of trades;

flow [limits] limit means for setting limits on the traded items and on any
underlying instruments to be exchanged upon settlement of the traded
items; and

a central computer coupled to the at least two [agents] agent means, said
computer adapted to convey to each agent means individualized
current tradable bid and offered prices and sizes to a depth. said prices,

sizes, and depth automatically determined by and taking into account [all of] the current limits set by the [current] flow [limits] limit means between all pairs of [agents] agent means;

wherein there are at least two credit-extending [agents] agent means having trading channels with a single non-credit-extending agent means; and, there are at least two non-credit-extending [agents] agent means having trading channels with the same credit-extending agent means, which credit-extending agent means has instructed the central computer that it is permissible to have two non-credit-emending [agents] agent means perform trades via said credit-extending agent means.

8. (previously presented) The apparatus of claim 1 wherein the central computer updates the current tradable information after each trade.

9. (currently amended) Apparatus for facilitating the trading of items from the group of items consisting of commodities and financial instruments, said apparatus comprising:

a plurality of [agents that wish trade] agent means for trading the items, wherein each agent means is coupled to at least one other agent means via a trading channel;
at least one non-credit-extending agent means having trading channels with at least two credit-extending [agents] agent means; and

at least one commonly-coupled credit-extending agent means having trading channels with at least two trade-seeking [agents] agent means from the group of [agents] agent means consisting of credit-extending [agents] agent means and non-credit-extending [agents] agent means, wherein said commonly-coupled credit-extending agent means has instructed a central computer that it is permissible to have at least two such trade-seeking [agents] agent means perform trades via said commonly-coupled credit-extending agent means in a credit bridge. such that the central computer conveys to each agent means individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account all [of the] current credit limits between all pairs of [agents] agent means.

10. (currently amended) The apparatus of claim 1 further comprising a second computer coupled to the central computer, adapted to affix date and time stamps on trade orders posted by the [agents] agent means.

11. (currently amended) The apparatus of claim 1 wherein at least one agent means comprises a computer having an application programming interface (API), wherein the API is coupled to the central computer and enables the agent means to

write customized instructions to facilitate two-way communication between the agent means and the central computer.

12. (currently amended) The apparatus of claim 11 wherein the agent means is a credit-extending agent means and the API enables the agent means to update the [agents] agent means' and the central computer.

13. (previously presented) The apparatus of claim 11 wherein the API is programmed to make and cancel orders.

14. (currently amended) The apparatus of claim 11 wherein the API receives and reformats the [agents] agent means' current tradable bid and asked information for any traded items.

15. (previously presented) The apparatus of claim 11 wherein the API sets trading limits.

16. (currently amended) The apparatus of claim 11 wherein the API estimates how much it would cost the agent means to liquidate the [agents] agent means' position in a traded item.

17. (currently amended) The apparatus of claim 11 wherein the API is programmed to estimate the [agent's] agent means current profit/loss amount for each item being traded.

18. (previously presented) The apparatus of claim 11 wherein the API is programmed to automatically execute trades.

19. - 43. (canceled)

44. (currently amended) A computer adapted to facilitate trading among a plurality of [agents] agent means items from the group of items consisting of commodities and financial instruments, said computer comprising:

means for converting specified input credit limits into a set of trading limits;

coupled to the converting means, means for postulating the trading limits as a set of multi-hop trading limits, said multi-hop trading limits taking into account credit extended by credit bridges between [agents] agent means; and

coupled to the postulating means, means for communicating the multi-hop trading limits to the [agents] agent means in the form of an individualized custom limit order book for each agent means, taking into account all of the specified input credit limits.

45. (original) The computer of claim 44 wherein the postulating means comprises means for applying a maximum flow algorithm.

46. (canceled)

47. (currently amended) A method by which a computer facilitates trading among a plurality of [agents] agent means, items from the group of items consisting of commodities and financial instruments, said computer performing the steps of:

converting specified input credit limits into a set of computerized trading limits;

graphing a network comprising nodes representing [agents] agent means, said nodes being connected: by paths representing the trading limits;

deriving from the graph a set of multi-hop trading limits between each pair of [agents] agent means, said multi-hop trading limits reflecting the fact that at least one node is a credit-bridging node; and

communicating the multi-hop trading limits to the [agents] agent means in the form of an individualized custom limit order book: for each agent means, said custom limit order book taking into account the topology of the network.

48. (original) The method of claim 47 wherein the deriving step comprises applying a maximum flow algorithm.

49-56. (cancelled)

Allowable Subject Matter

4. Claims 1-18, 44-45, 47, and 48 are allowed.

REASONS FOR ALLOWANCE

5. The following is an examiner's statement of reasons for allowance:

The present invention includes independent claims 1, 3, 4, 5, 7, 9, 44, 47.

Claims 1, 3, 4, 5, 7, 9 recites an apparatus for facilitating trading two items from the group consisting of commodities and financial instruments, claim 44 recites a computer adapted to facilitate trading among a plurality of agents items from the group of items consisting of commodities and financial instruments, claim 46 recites a computer readable medium comprising computer program instructions encoded on said medium for enabling an agent to trade items from the group of items consisting of commodities and financial instruments, claim 47 recites a method by which a computer

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facilitates trading, among a plurality of agents, items from the group of items consisting of commodities and financial instruments, claim 49 recites a first agent computer adapted to trade with other agent computers items from the group of items consisting of commodities and financial instruments, claim 53 recites a method by which a first computer trades with other computers items from the group of items consisting of commodities and financial instruments, claim 55 recites a computer readable medium comprising computer program instructions encoded on said medium for enabling a central computer to facilitate trading, among a plurality of agents, items from the group of items consisting of commodities and financial instruments.

Kitchen et al is considered the closest prior art. Kitchen et al teaches Kitchen et al discloses a system for facilitating trading two items from the group of items comprising commodities and financial instruments. The system includes: at least two agents that want to trade the items and a trading channel between the two agents allowing for the execution of trades (para 0014), a central computer coupled to the two agents, said computer adapted to convey current tradable bid and offered prices and sizes subject to the agent's flow limits (fig 20). The central computer updates the current tradable information after each trade (para 0138). Affix dates and time stamps on trade Orders posted by the agents are present (fig 5).

Kitchen et al does not disclose:

as recited in claims 1, 3, 4, and 7: a central computer coupled to the at least two agents means, said computer adapted to derive and convey to each agent means individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account the current limits set by the flow limit means between all pairs of agents means;

as recited in claim 9: at least one commonly-coupled credit-extending agent means having trading channels with at least two trade-seeking agents means from the group of agent means consisting of credit-extending agents and non-credit-extending agent means, wherein said commonly-coupled credit-extending agent means has instructed a central computer that it is permissible to have at least two such trade-seeking agent means perform trades via said commonly-coupled credit-extending agent means in a credit bridge, such that the central computer conveys to each agent individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account all of the current credit limits between all pairs of agent means;

as recited in claim 44: coupled to converting means, means for postulating the trading limits as a set of multi-hop trading limits, said multi-hop trading limits taking into account credit extended by credit bridges between agents means; and,

coupled to the postulating means, means for communicating the multi-hop trading limits to the agent means in the form of an individualized custom limit order book for each agent, taking into account all of the specified input credit limits;

as recited in claim 47: graphing a network comprising nodes representing agent means, said nodes being connected by paths representing the trading limits,

deriving from the graph a set of multi-hop trading limits between each pair of agent means, said multi-hop trading limits reflecting the fact that at least one node is a credit-bridging node; and,

communicating the multi-hop trading limits to the agent means in the form of an individualized custom limit order book for each agent means, said custom limit order book taking into account the topology of the network.

For these reasons claims 1, 3, 4, 5, 7, 9, 44, and 47 are deemed to be allowable over the prior art of record, and claims 2, 6, 8, 10-18, 45, and 48 are allowable by dependency.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alain L. Bashore whose telephone number is 571-272-6739. The examiner can normally be reached on about 7:30 am to 5:00 pm (Mon. thru Thurs.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Regarding all Class 705 applications, the management contact regarding examination is: Vincent Millin (SPE, art unit 3624) at 571-272-6747.

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7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alain L. Bashore
Primary Examiner
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